



Docket No.: M4065.0656/P656

(PATENT)

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Patent Application of:

Terry L. Gilton

Confirmation No. 2658

Application No.: 10/663,741

Art Unit: 2811

Filed: September 17, 2003

Examiner: Cuong Q. Nguyen

For: NON-VOLATILE MEMORY STRUCTURE

### REQUEST FOR ACKNOWLEDGMENT OF INFORMATION DISCLOSURE STATEMENTS

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Applicant respectfully requests that the receipt and consideration of the Information Disclosure Statements filed on June 18, 2004, June 4, 2004, March 11, 2004, and December 18, 2003 be formally acknowledged at the earliest possible convenience. For convenience, attached hereto is a copy of the June 18, 2004 Information Disclosure Statement, Form PTO SB/08 and the corresponding postcard receipt with date-stamp showing the date of filing. The June 4, 2004, March 11, 2004 and December 18, 2003 PTO SB/08's (copies attached) were received back with the September 24, 2004 Quayle Office Action date-stamped, however, they are not acknowledged with the Examiner's initials.

Application No.: 10/663,741 Docket No.: M4065.0656/P656

Dated: October 1, 2004

Respectfully submitted;

Thomas J. D'Amico

Registration No.: 28,371

Christopher S. Chow

Registration No.: 46,493

DICKSTEIN SHAPIRO MORIN &

**OSHINSKY LLP** 

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Attorneys for Applicant



Atty Docket No.: M4065.0656/P656

Inventor: Terry L. Gilton

**Application No.:** 10/663,741-Conf. #2658

Filing Date: September 17, 2003

Title: NON-VOLATILE MEMORY STRUCTURE

**Documents Filed:** 

Information Disclosure Statement (2 pages in duplicate), PTO SB/08 (1 page) with reference

Via: PTO DAILY RUN

Sender's Initials: TJD/CSC/cdl

Date: June 18, 2004

OTPE TRADEMENT

cal6-17-01



Docket No.: M4065.0656/P656

(PATENT)

#### IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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Terry L. Gilton

Application No.: 10/663,741

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Art Unit: 2811

For:

NON-VOLATILE MEMORY

STRUCTURE

Examiner: Not Yet Assigned

#### **INFORMATION DISCLOSURE STATEMENT (IDS)**

Commissioner for Patents P.O. Box 1450 Alexandria, VA 22313-1450

Dear Sir:

Pursuant to 37 CFR 1.56, 1.97 and 1.98, the attention of the Patent and Trademark Office is hereby directed to the reference listed on the attached PTO/SB/08. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the reference be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

This Information Disclosure Statement is filed before the mailing date of a first Office Action on the merits as far as is known to the undersigned (37 CFR 1.97(b)(3)).

A copy of the reference listed on the PTO/SB/08 is attached.

In accordance with 37 CFR 1.97(g), the filing of this Information Disclosure Statement shall not be construed to mean that a search has been made or that no other material information as defined in 37 CFR 1.56(a) exists. In accordance with 37 CFR 1.97(h), the filing of this Information Disclosure statement shall not be construed to be an

Application No.: 10/663,741 Docket No.: M4065.0656/P656

admission that any patent, publication or other information referred to therein is "prior art" for this invention unless specifically designated as such.

It is submitted that the Information Disclosure Statement is in compliance with 37 CFR 1.98 and the Examiner is respectfully requested to consider the listed reference.

The Director is hereby authorized to charge any deficiency in the fees filed, asserted to be filed or which should have been filed herewith (or with any paper hereafter filed in this application by this firm) to our Deposit Account No. 04-1073, under Order No. M4065.0656/P656. A duplicate copy of this paper is enclosed.

Dated: June 18, 2004

Respectfully submitted

Thomas I. D'Amico

Registration No.: 28,371

Christopher S. Chow

Registration No.: 46,493

**DICKSTEIN SHAPIRO MORIN &** 

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PTO/SB/08a/b (08-03)

Terry L. Gilton

2811

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Under the Fabrician Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Complete if Known Substitute for form 1449A/B/PTO Application Number 10/663,741 Filing Date September 17, 2003

First Named Inventor

Art Unit

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use as many sheets as necessary)

**Examiner Name** Not Yet Assigned M4065.0656/P656 1 Sheet of Attorney Docket Number

	U.S. PATENT DOCUMENTS							
Examiner Initials*	Cite No.1	Document Number  Number-Kind Code <sup>2</sup> ( if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevan Figures Appear			
	A	6,673,648	01/06/2004	Lowrey				
	1			1				

FOREIGN PATENT DOCUMENTS								
Examiner Initials*	Cite No.1	Foreign Patent Document  Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear			
						Π		

\*EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. 'Applicant's unique citation designation number (optional). <sup>2</sup> See Kinds Codes of USPTO Patent Documents at <a href="https://www.uspto.gov">www.uspto.gov</a> or MPEP 901.04. <sup>3</sup> Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). <sup>4</sup> For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the serial number of the patent document. <sup>5</sup> Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST.16 if possible. <sup>6</sup> Applicant is to place a check mark here if English language Translation is attached.

NON PATENT LITERATURE DOCUMENTS							
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T²				

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&</sup>lt;sup>1</sup>Applicant's unique citation designation number (optional). <sup>2</sup>Applicant is to place a check mark here if English language Translation is attached.

	•	
	Application No.	Applicant(s)
Office Action Summer	10/663,741	GILTON, TERRY L.
Office Action Summary	Examiner	Art Unit
21 DEPT	Cuong Q Nguyen	2811
The MAILING DATE of this communication appeared for Reply	ears on the cover sheet with	h the correspondence address
A SHORTENED STATUTORY PERIOD FOR REPLY THE MAILING DATE OF THIS COMMUNICATION.  - Extensions of time may be available under the provisions of 37 CFR 1.13 after SIX (6) MONTHS from the mailing date of this communication.  - If the period for reply specified above is less than thirty (30) days, a reply if NO period for reply is specified above, the maximum statutory period we Failure to reply within the set or extended period for reply will, by statute, Any reply received by the Office later than three months after the mailing earned patent term adjustment. See 37 CFR 1.704(b).	66(a). In no event, however, may a rep within the statutory minimum of thirty ill apply and will expire SIX (6) MONT cause the application to become ABA	oly be timely filed  (30) days will be considered timely.  HS from the mailing date of this communication.  NDONED (35 U.S.C. & 133)
Status		·
1) Responsive to communication(s) filed on		
	action is non-final.	
3) Since this application is in condition for allowan		rs, prosecution as to the merits is
closed in accordance with the practice under E.		· · · · · · · · · · · · · · · · · · ·
Disposition of Claims		
4)⊠ Claim(s) <u>1-46</u> is/are pending in the application.		
4a) Of the above claim(s) 10-25 is/are withdraw	n from consideration.	•
5)⊠ Claim(s) <u>1-9 and 26-46</u> is/are allowed.		
6)  Claim(s) is/are rejected.		
7) Claim(s) is/are objected to.		
8) Claim(s) are subject to restriction and/or	election requirement.	
Application Papers	·	•
9) The specification is objected to by the Examiner	·.	
10) ☐ The drawing(s) filed on is/are: a) ☐ acce	epted or b) objected to by	y the Examiner.
Applicant may not request that any objection to the d		
Replacement drawing sheet(s) including the correction	on is required if the drawing(s	) is objected to. See 37 CFR 1.121(d).
11) ☐ The oath or declaration is objected to by the Exa	aminer. Note the attached	Office Action or form PTO-152.
Priority under 35 U.S.C. § 119		
<ul><li>12) ☐ Acknowledgment is made of a claim for foreign  </li><li>a) ☐ All b) ☐ Some * c) ☐ None of:</li></ul>	priority under 35 U.S.C. §	119(a)-(d) or (f).
1. Certified copies of the priority documents	have been received.	
2. Certified copies of the priority documents	• '	· .
3. Copies of the certified copies of the priori		eceived in this National Stage
application from the International Bureau		
* See the attached detailed Office action for a list of	of the certified copies not re	eceived.
Attachment(s)		
Notice of References Cited (PTO-892)	4) 🔲 Interview Sur	
2) Notice of Draftsperson's Patent Drawing Review (PTO-948) 3) Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 12-18-03, 03-11-04.	Paper No(s)/	Mail Date  prmal Patent Application (PTO-152)
6. Patent and Trademark Office	ion Summary	Part of Paper No./Mail Date 091604

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U.S. Patent and Trademark Office; U.S. DEPARTMENT OF COMMERCE work Reduction Act of 1995, 165 pages sequired to respond to a collection of information unless it contains a valid OMB control number.

Complete if Known Substitute for form 1449A/B/PTO 10/663,741 Application Number **INFORMATION DISCLOSURE** Filing Date **September 17, 2003** STATEMENT BY APPLICANT First Named Inventor Terry L. Gilton Art Unit 2811 (Use as many sheets as necessary) Examiner Name Not Yet Assigned M4065.0656/P656 Sheet 1 of 3 Attorney Docket Number

			U.S. PA	TENT DOCUMENTS	
Examiner Initials*	Cite No.	Document Number  Number-Kind Code <sup>2</sup> ( if Innown)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Unes, Where Relevant Passages or Relevant Figures Appear
-	Α	US 2004/0035401	2/2004	Ramachandran et al.	
	В	US 2003/0212724	11/2003	Ovshinsky et al.	
	С	US 2003/0048744	3/2003	Ovshinsky et al.	
	D	US 2003/0212725	11/2003	Ovshinsky et al.	
	E	US RE 37,259E	7/2001	Ovshinsky	
	F	US 3,271,591	9/1966	Ovshinsky	
	G	US 3,961,314	6/1976	Klose et al.	
	Н	US 3,966,317	6/1976	Wacks et al.	
	ī	US 3,983,542	11/1976	Ovshinsky	
	J	US 3,988,720	10/1976	Ovshinsky	
	K	US 4,177,474	12/1979	Ovshinsky	
	L	US 4,267,261	5/1981	Hallman et al.	
	М	US 4,597,162	7/1986	Johnson et al.	
	N	US 4,608,296	8/1986	Keem et al.	
	0	US 4,637,895	1/1987	Ovshinsky et al.	
	P	US 4,646,266	2/1987	Ovshinsky et al.	
	Q	US 4,664,939	5/1987	Ovshinsky	
	R	US 4,668,968	5/1987	Ovshinsky et al.	
	s	US 4,670,763	6/1987	Ovshinsky et al.	
	<del>l -</del>	US 4,673,957	6/1987	Ovshinsky et al.	
	ΰ	US 4,678,679	7/1987	Ovshinsky	
	V	US 4,696,758	9/1987	Ovshinsky et al.	
	w	US 4,698,234	10/1987	Ovshinsky et al.	· · · · · · · · · · · · · · · · · · ·
	X	US 4,710,899	12/1987	Young et al.	
	Y	US 4,728,406	3/1988	Baneriee et al.	
	Z	US 4,737,379	4/1988	Hudgens et al.	
	A1	US 4,766,471	8/1988	Ovshinsky et al.	
	B1	US 4,769,338	9/1988	Ovshinsky et al.	
	C1	US 4,775,425	10/1988	Guha et al.	
	D1	US 4,788,594	11/1988	Ovshinsky et al.	
	E1	US 4,809,044	2/1989	Pryor et al.	
	F1	US 4,818,717	4/1989	Johnson et al.	
	G1	US 4,843,443	6/1989	Ovshinsky et al.	
	H1	US 4,845,533	7/1989	Pryor et al.	
	11	US 4,853,785	8/1989	Ovshinsky et al.	
	<del>J1</del>	US 4,891,330	1/1990	Guha et al.	
	K1	US 5,128,099	7/1992	Strand et al.	
	L1	US 5,159,661	10/1992	Ovshinsky et al.	
	M1	US 5,166,758	11/1992	Ovshinsky et al.	
	N1	US 5,177,567	1/1993	Klersy et al.	
	01	US 5,296,716	3/1994	Ovshinsky et al.	
	P1	US 5,335,219	8/1994	Ovshinsky et al.	<u> </u>
-	01	US 5,359,205	10/1994	Ovshinsky	
	R1	US 5,341,328	8/1994	Ovshinsky et al.	<del></del>
	<u>Si</u>	US 5,406,509	4/1995	Ovshinsky et al.	<del></del>



PTO/SB/08a/b (08-03)

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Sub	stitute for form 1449A/B/	PTO		Complete if Known		
				Application Number	10/663,741	
IN	IFORMATIC	N DI	SCLOSURE	Filing Date	September 17, 2003	
S	<b>TATEMENT</b>	BY /	APPLICANT	First Named Inventor	Terry L. Gilton	
				Art Unit	2811	
	(Use as many	sheets as	necessary)	Examiner Name	Not Yet Assigned	
Sheet	2	of	3	Attorney Docket Number	M4065.0656/P656	

T1 US 5,414,271 5/1995 Ovshinsky et al.  U1 US 5,534,711 7/1996 Ovshinsky et al.  V1 US 5,534,712 7/1996 Ovshinsky et al.	
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W1 US 5,536,947 7/1996 Klersy et al.	
X1 US 5,543,737 8/1996 Ovshinsky	
Y1 US 5,591,501 1/1997 Ovshinsky et al.	
Z1 US 5,596,522 1/1997 Ovshinsky et al.	
A2 US 5,687,112 11/1997 Ovshinsky	
B2 US 5,694,054 12/1997 Ovshinsky et al.	
C2 US 5,714,768 2/1998 Ovshinsky et al.	
D2 US 5,825,046 10/1998 Czubatyj et al.	
E2 US 5,912,839 6/1999 Ovshinsky et al.	
F2 US 5,933,365 8/1999 Klersy et al.	
G2 US 6,011,757 1/2000 Ovshinsky	
H2 US 6,087,674 7/2000 Ovshinsky et al.	
J2 US 6,339,544 1/2002 Chiang et al.	
K2 US 6,404,665 6/2002 Lowery et al.	
L2 US 6,429,064 8/2002 Wicker	
M2 US 6,437,383 8/2002 Xu	
N2 US 6,462,984 10/2002 Xu et al.	
O2 US 6,480,438 11/2002 Park	
P2 US 6,487,113 11/2002 Park et al.	
Q2 US 6,501,111 12/2002 Lowery	
R2 US 6,507,061 1/2003 Hudgens et al.	
S2 US 6,511,862 1/2003 Hudgens et al.	
T2 US 6,511,867 1/2003 Lowery et al.	
U2 US 6,512,241 1/2003 Lai	
V2 US 6,514,805 2/2003 Xu et al.	
W2 US 6,531,373 3/2003 Gill et al.	
X2 US 6,534,781 3/2003 Dennison	
Y2 US 6,545,287 4/2003 Chiang	
Z2 US 6,545,907 4/2003 Lowery et al.	
A3 US 6,555,860 4/2003 Lowery et al.	
B3 US 6,563,164 5/2003 Lowery et al.	
C3 US 6,566,700 5/2003 Xu	
D3 US 6,567,293 5/2003 Lowery et al.	
E3 US 6,569,705 5/2003 Chiang et al.	
F3 US 6,570,784 5/2003 Lowery	
G3 US 6,576,921 6/2003 Lowery	
H3 US 6,586,761 7/2003 Lowery	
i3 US 6,589,714 7/2003 Malmon et al.	
J3 US 6,590,807 7/2003 Lowery	
K3 US 6,593,176 7/2003 Dennison	
L3 US 6,597,009 7/2003 Wicker	
M3 US 6,605,527 8/2003 Dennison et al.	
N3 US 6,613,604 9/2003 Maimon et al.	
O3 US 6,621,095 9/2003 Chiang et al.	
P3 US 6,625,054 9/2003 Lowery et al.	
Q3 US 6,642,102 11/2003 Xu	

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Subst	itute for form 1449A/B	PTO.		Complete if Known		
				Application Number	10/663,741	
IN	FORMATIC	ON DI	SCLOSURE	Filing Date	September 17, 2003	
ST	TATEMENT	BY	APPLICANT	First Named Inventor	Terry L. Gilton	
				Art Unit	2811	
	(Use as many	sheets a	necessary)	Examiner Name	Not Yet Assigned	
Sheet	3	of	3	Attorney Docket Number	M4065.0656/P656	

 R3	US 6,646,297	11/2003	Dennison	
S3	US 6,649,928	11/2003	Dennison	
T3	US 6,667,900	12/2003	Lowery et al.	
U3	US 6,671,710	12/2003	Ovshinsky et al.	
V3	US 6,673,700	1/2004	Dennison et al.	
W3	US 6,674,115	1/2004	Hudgens et al.	
X3	US 6,687,427	2/2004	Ramalingam et al.	
Y3	US 6,690,026	2/2004	Peterson	
<b>Z</b> 3	US 6,696,355	2/2004	Dennison	
 A4	US 6,687,153	2/2004	Lowery	
 B4	US 6,707,712	3/2004	Lowery	
C4	US 6,714,954	3/2004	Ovshinsky et al.	

FOREIGN PATENT DOCUMENTS									
	Cita	Foreign Patent Document	Publication	Name of Patentee or	Pages, Columns, Lines,				
Examiner Initials*	Cite No.1	Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>3</sup> (If known).	WW-DD-XXXX	Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear				
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NON PATENT LITERATURE DOCUMENTS						
Examiner Initials	Cite No. <sup>1</sup>	Include name of the author (In CAPITAL LETTERS), title of the article (when appropriate), title of the item (book; magazine, journal, serial, symposium, catalog, etc.), date, page(s), volume-issue number(s), publisher, city and/or country where published.	<b>T</b> 2			

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 809. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

<sup>&#</sup>x27;Applicant's unique citation designation number (optional). <sup>3</sup>Applicant is to place a check mark here if English language Translation is attached.



PTO/SB/08a/b (08-03) Approved for use through 07/31/2006. OMB 0651-0031 U.S. Patent and Trademark Office, U.S. DEPARTMENT OF COMMERCE

2811

ork Reduction Act of 1995, no persons are required to respond to a collection of information unless it contains a valid OMB control number. Complete if Known Substitute for form 1449A/B/PTO Application Number 10/663,741-Conf. #2658 INFORMATION DISCLOSURE Filing Date **September 17, 2003** First Named Inventor Terry L. Gilton

Art Unit

STATEMENT BY APPLICANT

(Use as many sheets as necessary)

Examiner Name Not Yet Assigned Sheet M4065.0656/P656 of 1 Attorney Docket Number

U.S. PATENT DOCUMENTS							
Examiner	C'1-	Cite No. Number-Kind Code <sup>2</sup> (If known) Publication Date MM-DD-YYYY	Publication Date	Name of Patentee or	Pages, Columns, Lines, Where		
Initials*			Applicant of Cited Document	Relevant Passages or Relevant Figures Appear			

		FOREI	GN PATENT	DOCUMENTS		
Examiner Initials*	Cite No.1	Foreign Patent Document  Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>6</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear	τ°

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		NON PATENT LITERATURE DOCUMENTS	
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	CA	YOJI KAWAMOTO et al., "Ionic Conduction in As <sub>2</sub> S <sub>3</sub> -Ag <sub>2</sub> S, GeS <sub>2</sub> -GeS <sub>2</sub> -GeS-Ag <sub>2</sub> S and P <sub>2</sub> S <sub>5</sub> -Ag <sub>2</sub> S Glasses," Journal of Non-Crystalline Solids 20 (1976) 393-404.	

<sup>\*</sup>EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609. Oraw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Applicant's unique citation designation number (optional). Applicant is to place a check mark here if English language Translation is attached.



PTO/SB/08A (10-01)
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U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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Substitute for form 1449A/PTO

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## INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(use as many sheets as necessary)

1 of 11

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	Complete If Known
Application Number	10/663,741
Filing Date	September 17, 2003
First Named Inventor	Terry L. Gilton
Art Unit	N/A
Examiner Name	Not Yet Assigned
Attorney Docket Number	M4065.0656/P656

		Document Number		TENT DOCUMENTS	Pages, Columns, Lines,
Examiner Initials*	Cite No.1	Number-Kind Code <sup>2</sup> (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear
	AA	2002/0000666	1/3/2002	Kozicki et al.	
	AB	2002/0072188	6/13/2002	Gilton	
	AC	2002/0106849	08/08/2002	Moore	
	AH	2002/0123169	09/05/2002	Moore et al.	
	ÀΙ	2002/0123170	09/05/2002	Moore et al.	
	AJ	2002/0123248	09/05/2002	Moore et al.	
	AK	2002/0127886	09/12/2002	Moore et al.	
	AL	2002/0132417	09/09/2002	Li	
	AF	2002/0160551	10//31/2002	Harshfield	
	AG	2002/0163828	11/07/2002	Krieger et al.	
	AM	2002/0168820	11/2002	Kozicki	
	AN	2002/0168852	11/14/2002	Harshfield et al.	
	AO	2002/0190289	12/19/2002	Harshfield et al.	
	AP	2002/0190350	12/19/2002	Kozicki et al.	
	AQ	2003/0001229	01/02/2003	Moore et al.	
	AR	2003/0027416	02/06/2003	Moore	
	AS	2003/0032254	02/13/2003	Gilton	
	AT	2003/0035314	02/20/2003	Kozicki	
	AU	2003/0035315	02/20/2003	Kozicki	
	AV	2003/0038301	02/27/2003	Moore	
	AW	2003/0043631	03/06/2003	Gilton et al.	
	AX	2003/0045049	03/06/2003	Campbell et al.	
	AY	2003/0045054	03/06/2003	Campbell et al.	
	AZ	2003/0047765	03/13/2003	Campbell	
	AA1	2003/0047772	03/13/2003	U	
	AB1	2003/0047773	03/13/2003	Li	
	AC1	2003/0048519	03/13/2003	Kozicki	
	AD1	2003/0049912	03/13/2003	Campbell et al.	
	AE1	2003/0068861	04/10/2003	Li	
	AF1	2003/0068862	04/10/2003	Li	
	AG1	2003/0095426	05/22/2003	Hush et al.	
	AH1	2003/0096497	05/22/2003	Moore et al.	
	Al1	2003/0107105	06/12/2003	Kozicki	
	AJ1	2003/0117831	06/26/2003	Hush	
	AK1	2003/0128612	07/10/2003	Moore et al.	
	AL1	2003/0137869		Kozicki	
	AM1	2003/0143782	07/31/2003	Gilton et al.	
	AN1	2003/0155589	08/21/2003	Campbell et al.	
	A01	2003/0155606	08/21/2003	Campbell et al.	
	AP1	2003/0156447	08/21/2003	Kozicki	
	AQ1	2003/0156463	08/21/2003	Casper et al.	
	AR1	3,622,319	11/1971	Sharp	
	AS1	3,743,847	7/1973	Boland	
	AT1	4,269,935	5/1981	Masters et al.	

PTO/SB/08A (10-01)

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	Complete if Known
Application Number	10/663,741
Filing Date	September 17, 2003
First Named Inventor	Terry L. Gilton
Art Unit	N/A
Examiner Name	Not Yet Assigned
Attorney Docket Number	M4065.0656/P656

<u> </u>			
AU1 4,312,938	1/1982	Drexler, et al.	
AV1 4,316,946	1/1982	Masters, et al.	
AW1 4,320,191	3/1982	Yoshikawa et al.	
AX1 4,405,710	9/1983	Balasubramanyam et al.	
AY1 4,419,421	12/1983 -	Wichelhaus, et al.	
AZ1 4,499,557	2/1985	Holmberg et al.	
AA2 4,671,618	06/09/1987	Wu et al.	
AB2 4,795,657	1/1989	Formigoni et al.	
	01/24/1989	Lewis	
AC2 4,800,526 AD2 4,847,674	7/1989	Sliwa et al.	
AB2 4,847,674 AE2 5,177,567	1/1993	Klersy et al.	
AF2   5,177,367	6/1993	Abernathey et al.	
	8/1993	Blalock et al.	
AG2   5,238,862 AH2   5,272,359	12/21/1993	Nagasubramanian et al.	
	5/24/1994	Kozicki	
Al2 5,314,772 AJ2 5,315,131	5/1994	Kishimoto et al.	
	9/1994	Gardner et al.	
AK2 5,350,484	11/1994	Owen et al.	
AL2 5,360,981	3/19/1996	Kozicki et al.	
AM2 5,500,532	<del> </del>	Yoshimura et al.	
AN2 5,512,328	4/1996	<del></del>	
AO2 5,512,773	4/1996	Wolf et al.	
AP2 5,726,083	3/1998	Takaishi	
AQ2 5,751,012	5/12/1998	Wolstenholme et al.	
AR2   5,761,115	6/1998	Kozicki et al.	<b> </b>
AS2   5,789,277	8/1998	Zahorik et al.	
AT2 5,814,527	9/29/1998	Wolstenholme et al	
AU2 5,818,749	10/06/1998	Harshfield	
AV2 5,841,150	11/1998	Gonzalez et al.	
AW2 5,846,889	12/1998	Harbison et al.	<u> </u>
AX2   5,851,882	12/22/1998	Harshfield	
AY2   5,869,843	2/9/1999	Harshfield	
AZ2   5,896,312	4/20/1999	Kozicki et al.	<b></b>
AA3 5,914,893	6/22/1999	Kozicki et al.	
AB3 5,920,788	7/1999	Reinberg	
AC3 5,998,066	12/1999	Block et al.	
AD3 6,031,287	2/29/2000	Harshfield	
AE3 6,072,716	06/06/2000	Jacobson et al.	
AF3 6,077,729	6/2000	Harshfield	
AG3 6,084,796	7/4/2000	Kozicki et al.	
AH3 6,177,338	1/2001	Liaw et al.	
Al3 6,117,720	9/2000	Harshfield	
AJ3 6,143,604	11/2000	Chiang et al.	
AK3 6,236,059	5/2001	Wolsteinholme et al.	
AL3 6,297,170	10/2001	Gabriel et al.	
AM3 6,300,684	10/2001	Gonzalez et al.	
AN3 6,316,784	11/2001	Zahorik et al.	·
AO3 6,329,606	12/2001	Freyman et al.	
AP3 6,348,365	2/19/2002	Moore et al.	
AQ3 (6,350,679	2/2002	McDaniel et al.	l <u></u>

PTO/SB/08A (10-01)
Approved for use through 10/31/2002.OMB 0651-0031
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Application Number	10/663,741
Filling Date	September 17, 2003
First Named Inventor	Terry L. Gilton
Art Unit	N/A
Examiner Name	Not Yet Assigned
Attorney Docket Number	M4065.0656/P656

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		FOREI	GN PATENT	DOCUMENTS	· <u>·</u> ·	
Examiner	Cite	Foreign Petent Document	Publication Date	Name of Patentee or	Pages, Columns, Lines,	Т
Initials*	No.1	Country Code <sup>3</sup> -Number <sup>4</sup> -Kind Code <sup>5</sup> (If known)		Applicant of Cited Document	Where Relevant Passages or Relevant Figures Appear	To
	BA ,	56126916	10/19981	Akira et al.		_
		WO 97/48032	12/18/1997	Kozicki et al.		$\vdash$
		WO 99/28914		Kozicki et al.	<b>-</b>	╁─
	BD >	WO 00/48196		Kozicki et al.		<del>                                     </del>
	BE N	WO 02/21542		Kozicki et al.	<del></del>	╁

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			Group Art Unit	N/A			
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She	et	4	of	11	Attorney Docket Number	M4065.0656/P656	

<u></u>	0.11	OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS  Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the	Г
xaminer nitlals	Cite No.1	item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	τ²
	CA		
	СВ	Adler, D.; Moss, S.C., Amorphous memories and bistable switches, J. Vac. Sci. Technol. 9	
	СС	(1972) 1182-1189.  Adler, D.; Henisch, H.K.; Mott, S.N., The mechanism of threshold switching in amorphous	
	CD	alloys, Rev. Mod. Phys. 50 (1978) 209-220.  Afifi, M.A.; Labib, H.H.; El-Fazary, M.H.; Fadel, M., Electrical and thermal properties of chalcogenide glass system Se75Ge25-xSbx, Appl. Phys. A 55 (1992) 167-169.	Γ
	CE	Afifi,M.A.; Labib, H.H.; Fouad, S.S.; El-Shazly, A.A., Electrical & thermal conductivity of the amorphous semiconductor GexSe1-x, Egypt, J. Phys. 17 (1986) 335-342.	Γ
	CF	Alekperova, Sh.M.; Gadzhieva, G.S., Current-Voltage characteristics of Ag2Se single crystal near the phase transition, Inorganic Materials 23 (1987) 137-139.	
	CG	Alekslejunas, A.; Cesnys, A., Switching phenomenon and memory effect in thin-film heterojunction of polycrystalline selenium-silver selenide, Phys. Stat. Sol. (a) 19 (1973) K169-K171.	
	СН	Angell, C.A., Mobile ions in amorphous solids, Annu. Rev. Phys. Chem. 43 (1992) 693-717.	
	CI	Aniya, M., Average electronegativity, medium-range-order, and ionic conductivity in superionic glasses, Solid state Ionics 136-137 (2000) 1085-1089.	
	Cī	Asahara, Y.; Izumitani, T., Voltage controlled switching in Cu-As-Se compositions, J. Non-Cryst. Solids 11 (1972) 97-104.	
	СК	Asokan, S.; Prasad, M.V.N.; Parthasarathy, G.; Gopal, E.S.R., Mechanical and chemical thresholds in IV-VI chalcogenide glasses, Phys. Rev. Lett. 62 (1989) 808-810	Γ
	CL	Axon Technologies Corporation, Technology Description: Programmable Metalization Cell(PMC), pp. 1-6 (Pre-May 2000).	Γ
	СМ	Baranovskii, S.D.; Cordes, H., On the conduction mechanism in ionic glasses, J. Chem. Phys. 111 (1999) 7546-7557.	
	CN	Belin, R.; Taillades, G.; Pradel, A.; Ribes, M., Ion dynamics in superionic chalcogenide glasses: complete conductivity spectra, Solid state lonics 136-137 (2000) 1025-1029.	
	СО	Belin, R.; Zerouale, A.; Pradel, A.; Ribes, M., Ion dynamics in the argyrodite compound Ag7GeSe5I: non-Arrhenius behavior and complete conductivity spectra, Solid State Ionics 143 (2001) 445-455.	
	СР	Benmore, C.J.; Salmon, P.S., Structure of fast ion conducting and semiconducting glassy chalcogenide alloys, Phys. Rev. Lett. 73 (1994) 264-267.	Γ
	ca	Bernede, J.C., Influence du metal des electrodes sur les caracteristiques courant-tension des structures M-Ag2Se-M, Thin solid films 70 (1980) L1-L4.	Γ
1	CR	Bernede, J.C., Polarized memory switching in MIS thin films, Thin Solid Films 81 (1981) 155-160.	Γ
	cs	Bernede, J.C., Switching and silver movements in Ag2Se thin films, Phys. Stat. Sol. (a) 57 (1980) K101-K104.	Γ
	СТ	Bernede, J.C.; Abachi, T., Differential negative resistance in metal/insulator/metal structures with an upper bilayer electrode, Thin solid films 131 (1985) L61-L64.	Γ
	CU	Bernede, J.C.; Conan, A.; Fousenan't, E.; El Bouchairi, B.; Goureaux, G., Polarized memory switching effects in Ag2Se/Se/M thin film sandwiches, Thin solid films 97 (1982) 165-171.	Γ
	CV	Bernede, J.C.; Khelil, A.; Kettaf, M.; Conan, A., Transition from S- to N-type differential negative resistance in Al-Al2O3-Ag2-xSe1+x thin film structures, Phys. Stat. Sol. (a) 74 (1982)	Γ

PTO/SB/08B (10-01)
Approved for use through 10/31/2002.OMB 0651-0031
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Application Number	10/663,741
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First Named Inventor	Terry L. Gilton
Group Art Unit	N/A
Examiner Name	Not Yet Assigned
Attorney Docket Number	M4065.0656/P656

-		5 11 11 / Manual
	1	217-224.
	cw	Bondarev, V.N.; Pikhitsa, P.V., A dendrite model of current instability in RbAg415, Solid State lonics 70/71 (1994) 72-76.
	СX	Boolchand, P., The maximum in glass transition temperature (Tg) near x=1/3 in GexSe1-x Glasses, Asian Journal of Physics (2000) 9, 709-72.
	CY	Boolchand, P.; Bresser, W.J., Mobile silver lons and glass formation in solid electrolytes, Nature 410 (2001) 1070-1073.
	CZ	Boolchand, P.; Georglev, D.G.; Goodman, B., Discovery of the Intermediate Phase in Chalcogenide Glasses, J. Optoelectronics and Advanced Materials, 3 (2001), 703
-	CA1	Boolchand, P.; Selvanathan, D.; Wang, Y.; Georgiev, D.G.; Bresser, W.J., Onset of rigidity in steps in chalcogenide glasses, Properties and Applications of Amorphous Materials, M.F. Thorpe and Tichy, L. (eds.) Kluwer Academic Publishers, the Netherlands, 2001, pp. 97-132.
	CB1	Boolchand, P.; Enzweiler, R.N.; Tenhover, M., Structural ordering of evaporated amorphous chalcogenide alloy films: role of thermal annealing, Diffusion and Defect Data Vol. 53-54 (1987) 415-420.
	CC1	Boolchand, P.; Grothaus, J.; Bresser, W.J.; Suranyi, P., Structural origin of broken chemical order in a GeSe2 glass, Phys. Rev. B 25 (1982) 2975-2978.
	CD1	Boolchand, P.; Grothaus, J.; Phillips, J.C., Broken chemical order and phase separation in GexSe1-x glasses, Solid state comm. 45 (1983) 183-185.
	CE1	Boolchand, P., Bresser, W.J., Compositional trends in glass transition temperature (Tg), network connectivity and nanoscale chemical phase separation in chalcogenides, Dept. of ECECS, Univ. Cincinnati (October 28, 1999) 45221-0030.
	CF1	Boolchand, P.; Grothaus, J, Molecular Structure of Melt-Quenched GeSe2 and GeS2 glasses compared, Proc. Int. Conf. Phys. Semicond. (Eds. Chadi and Harrison) 17 <sup>th</sup> (1985) 833-36.
	CG1	Bresser, W.; Boolchand, P.; Suranyi, P., Rigidity percolation and molecular clustering in network glasses, Phys. Rev. Lett. 56 (1986) 2493-2496.
	CH1	Bresser, W.J.; Boolchand, P.; Suranyl, P.; de Neufville, J.P, Intrinsically broken chalcogen chemical order in stoichiometric glasses, Journal de Physique 42 (1981) C4-193-C4-196.
	CI1	Bresser, W.J.; Boolchand, P.; Suranyi, P.; Hernandez, J.G., Molecular phase separation and cluster size in GeSe2 glass, Hyperfine Interactions 27 (1986) 389-392.
	CJ1	Cahen, D.; Gilet, JM.; Schmitz, C.; Chemyak, L.; Gartsman, K.; Jakubowicz, A., Room- Temperature, electric field induced creation of stable devices in CulnSe2 Crystals, Science 258 (1992) 271-274.
	CK1	Chatterjee, R.; Asokan, S.; Titus, S.S.K., Current-controlled negative-resistance behavior and memory switching in bulk As-Te-Se glasses, J. Phys. D: Appl. Phys. 27 (1994) 2624-2627.
	CL1	Chen, C.H.; Tai, K.L., Whisker growth induced by Ag photodoping in glassy GexSe1-x films, Appl. Phys. Lett. 37 (1980) 1075-1077.
	CM1	Chen, G.; Cheng, J., Role of nitrogen in the crystallization of silicon nitride-doped chalcogenide glasses, J. Am. Ceram. Soc. 82 (1999) 2934-2936.
	CN1	Chen, G.; Cheng, J.; Chen, W., Effect of Si3N4 on chemical durability of chalcogenide glass, J. Non-Cryst. Solids 220 (1997) 249-253.
	CO1	Cohen, M.H.; Neale, R.G.; Paskin, A., A model for an amorphous semiconductor memory device, J. Non-Cryst. Solids 8-10 (1972) 885-891.
	CP1	Croitoru, N.; Lazarescu, M.; Popescu, C.; Telnic, M.; and Vescan, L., Ohmic and non-ohmic conduction in some amorphous semiconductors, J. Non-Cryst. Solids 8-10 (1972) 781-786.
	CQ1	Dalven, R.; Gill, R., Electrical properties of beta-Ag2Te and beta-Ag2Se from 4.2 to 300K, J. Appl. Phys. 38 (1967) 753-756.
	CR1	Davis, E.A., Semiconductors without form, Search 1 (1970) 152-155.
	CS1	Dearnaley, G.; Stoneham, A.M.; Morgan, D.V., Electrical phenomena in amorphous oxide films, Rep. Prog. Phys. 33 (1970) 1129-1191.
	CT1	Dejus, R.J.; Susman, S.; Volin, K.J.; Montague, D.G.; Price, D.L., Structure of Vitreous Aq-Ge-

PTO/SB/08B (10-01)
Approved for use through 10/31/2002.OMB 0651-0031
U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
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٠.	5k1	<b>FATEMENT</b>	BY A	APPLICANT	First Named Inventor	Terry L. Gilton	
	N. Carlot				Group Art Unit	N/A	
NO		(use as many si	ieets as	necessary)	Examiner Name	Not Yet Assigned	
	Sheet	6	of	11	Attorney Docket Number	M4065.0656/P656	

· · · · · · · · · · · · · · · · · · ·	So. I. Non Crost. Satisfa 142 (4002) 462 490
	Se, J. Non-Cryst. Solids 143 (1992) 162-180.
Cu-	(1982) 812-813.
CV1	
l	silicon/nanodisperse metal (SIMAL) system-Films of unique electronic properties, J. Non-Cryst. Solids 198-200 (1996) 829-832.
cw	
	Films 110 (1983) 107-113.
CX1	x photoconductivity, J. Non-Cryst. Solids 155 (1993) 171-179.
CY1	El Ghrandi, R.; Calas, J.; Galibert, G.; Averous, M., Silver photodissolution in amorphous chalcogenide thin films, Thin Solid Films 218 (1992)259-273.
CZ1	El Ghrandi, R.; Calas, J.; Galibert, G., Ag dissolution kinetics in amorphous GeSe5.5 thin films from "in-situ" resistance measurements vs time, Phys. Stat. Sol. (a) 123 (1991) 451-460.
CAZ	
CB2	
CC	
CD2	
CE2	
CF2	
CG	
CH2	
CI2	Feng, X.; Bresser, W.J.; Zhang, M.; Goodman, B.; Boolchand, P., Role of network connectivity
0.2	on the elastic, plastic and thermal behavior of covalent glasses, J. Non-Cryst. Solids 222 (1997) 137-143.
CJ2	
CK2	
CL2	
CM	<del></del>
CN2	
CO2	Gosaln, D.P.; Nakamura, M.; Shimizu, T.; Suzuki, M.; Okano, S., Nonvolatile memory based on reversible phase transition phenomena in telluride glasses, Jap. J. Appl. Phys. 28 (1989) 1013-1018.
CP2	
CQ2	

PTO/SB/08B (10-01)
Approved for use through 10/31/2002. OMB 0651-0031
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INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Complete if Known Application Number 10/663,741 September 17, 2003 Filing Date First Named Inventor Terry L. Gilton N/A Group Art Unit Not Yet Assigned

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				EXEMINE Name	Not let Assigned
Sheet	7	of	11	Attorney Docket Number	M4065.0656/P656

		_
	scratchability of germanium-selenium chalcogenide glasses, J. Am. Ceram. Soc. 85 (2002) 1545-52.	
CR2	Cryst. Sol. 3 (1970) 148-154.	
CS2	amorphous semiconductors, J. Non-Cryst. Solids 8-10 (1972) 408-414.	
СТ2	and electrical properties of As-Se-Cu glasses, J. Apply. Phys. 54 (1983) 1950-1954.	
CU2	effects in metal/a-Si:H/metal devices, Int. J. Electronics 73 (1992) 911-913.	
CV2	Si:H/metal room temperature quantised resistance devices, J. Non-Cryst. Solids 266-269 (2000) 1058-1061.	
CW	resistance effects in metal-a-Si;H-metal thin film structures, J. Non-Cryst. Solids 198-200 (1996) 825-828.	
CX2	ballistic electron effects in metal-amorphous silicon structures, Phil. Mag. B 63 (1991) 349-369.	
CY2	Japan, J. Appl. Phys. 13 (1974) 1163-1164.	
CZ2	Hegab, N.A.; Fadel, M.; Sedeek, K., Memory switching phenomena in thin films of chalcogenide semiconductors, Vacuum 45 (1994) 459-462.	
CA3		
СВЗ		
CC3		
CD3		
CE3	Holmquist et al., Reaction and Diffusion in Silver-Arsenic Chalcogenide Glass Systems, 62 J. AMER. CERAM. Soc., No. 3-4, pp. 183-188 (March-April 1979).	
CF3		
CG3	Hosokawa, S., Atomic and electronic structures of glassy GexSe1-x around the stiffness threshold composition, J. Optoelectronics and Advanced Materials 3 (2001) 199-214.	
СНЗ		
CI3	Hu, J.; Hajto, J.; Snell, A.J.; Owen, A.E.; Rose, M.J., Capacitance anomaly near the metal- non-metal transition in Cr-hydrogenated amorphous Si-V thin-film devices, Phil. Mag. B. 74 (1996) 37-50.	
CJ3	Hu, J.; Snell, A.J.; Hajto, J.; Owen, A.E., Current-induced instability in Cr-p+a-Si:H-V thin film devices, Phil. Mag. B 80 (2000) 29-43.	
СКЗ		
CL3	lizima, S.; Sugi, M.; Kikuchi, M.; Tanaka, K., Electrical and thermal properties of semiconducting glasses As-Te-Ge, Solid State Comm. 8 (1970) 153-155.	
СМЗ		

PTO/SB/088 (10-01)

Approved for use through 10/31/2002.OMB 0651-0031

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INFORMATION DISCLOSURE	
STATEMENT BY APPLICANT	

Complete If Known Application Number 10/663,741

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S S	TATE	MENT	BY AP	PLICANT	First Named Inventor Terry L. Gilton				
<u> </u>					Group Art Unit	N/A Not Yet Assigned			
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Sheet		8	of	11	Attorney Docket Number	M4065.0656/P656			
	CN3	lyetomi, H.; Vashishta, P.; Kalia, R.K., Incipient phase separation in Ag/Ge/Se glasses: clustering of Ag atoms, J. Non-Cryst. Solids 262 (2000) 135-142.							
	CO3	Jones, G.; Solid Films			perties of thin selenium	films under pulsed bias, Thin			
	CP3			thi, J., On the DC t. Sol. (a) 13 (1972		f amorphous As2Se7 before			
•	CQ3	Joullie, A.I	M.: Maruco	hi. J. Electrical p	roperties of the amorph	ious allov As2Se5, Mat. Res.			

CN3	lyetomi, H.; Vashlshta, P.; Kalia, R.K., Incipient phase separation in Ag/Ge/Se glasses: clustering of Ag atoms, J. Non-Cryst. Solids 262 (2000) 135-142.	
СОЗ	Jones, G.; Collins, R.A., Switching properties of thin selenium films under pulsed bias, Thin Solid Films 40 (1977) L15-L18.	
CP3	Joullie, A.M.; Marucchi, J., On the DC electrical conduction of amorphous As2Se7 before switching, Phys. Stat. Sol. (a) 13 (1972) K105-K109.	
CQ3	Jouille, A.M.; Marucchi, J., Electrical properties of the amorphous alloy As2Se5, Mat. Res. Bull. 8 (1973) 433-442.	
CR3	Kaplan, T.; Adler, D., Electrothermal switching in amorphous semiconductors, J. Non-Cryst. Solids 8-10 (1972) 538-543.	
CS3	Kawaguchi et al., Mechanism of photosurface deposition, 164-166 J. Non-CRYST. SOLIDS, pp. 1231-1234 (1993).	
СТЗ	Kawaguchi, T.; Maruno, S.; Elliott, S.R., Optical, electrical, and structural properties of amorphous Ag-Ge-S and Ag-Ge-Se films and comparison of photoinduced and thermally induced phenomena of both systems, J. Appl. Phys. 79 (1996) 9096-9104.	
CU3	Kawaguchi, T.; Masui, K., Analysis of change in optical transmission spectra resulting from Ag photodoping in chalcogenide film, Japn. J. Appl. Phys. 26 (1987) 15-21.	
CV3	Kawasaki, M.; Kawamura, J.; Nakamura, Y.; Aniya, M., Ionic conductivity of Agx(GeSe3)1-x (0<=x<=0.571) glasses, Solid state Ionics 123 (1999) 259-269.	
CW3	Kluge, G.; Thomas, A.; Klabes, R.; Grotzschel, R., Silver photodiffusion in amorphous GexSe100-x, J. Non-Cryst. Solids 124 (1990) 186-193.	
СХЗ	Kolobov, A.V., On the origin of p-type conductivity in amorphous chalcogenides, J. Non-Cryst. Solids 198-200 (1996) 728-731.	
CY3	Kolobov, A.V., Lateral diffusion of silver in vitreous chalcogenide films, J. Non-Cryst. Solids 137-138 (1991) 1027-1030.	
CZ3	Kolobov et al., Photodoping of amorphous chalcogenides by metals, Advances in Physics, 1991, Vol. 40, No. 5, pgs. 625-684.	
CA4	Korkinova, Ts.N.; Andreichin,R.E., Chalcogenide glass polarization and the type of contacts, J. Non-Cryst. Solids 194 (1996) 256-259.	
CB4	Kotkata, M.F.; Afif, M.A.; Labib, H.H.; Hegab, N.A.; Abdel-Aziz, M.M., Memory switching in amorphous GeSeTI chalcogenide semiconductor films, Thin Solid Films 240 (1994) 143-146.	
CC4	Kozicki et al., Silver incorporation in thin films of selenium rich Ge-Se glasses, International Congress on Glass, Volume 2, Extended Abstracts, July 2001, pgs. 8-9.	
CD4	Michael N. Kozicki, 1. Programmable Metallization Cell Technology Description, February 18, 2000	
CE4=	Michael N. Kozicki, Axon Technologies Corp. and Arizona State University, Presentation to Micron Technology, Inc., April 6, 2000	
CF4	Kozicki et al., Applications of Programmable Resistance Changes In Metal-Doped Chalcogenides, Electrochemical Society Proceedings, Volume 99-13, 1999, pgs. 298-309.	
CG4	Kozicki et al., Nanoscale effects in devices based on chalcogenide solid solutions, Superlattices and Microstructures, Vol. 27, No. 516, 2000, pgs. 485-488.	
CH4	Kozicki et al., Nanoscale phase separation in Ag-Ge-Se glasses, Microelectronic Engineering 63 (2002) pgs 155-159.	
CI4	Lakshminarayan, K.N.; Srivastava, K.K.; Panwar, O.S.; Dumar, A., Amorphous semiconductor devices: memory and switching mechanism, J. Instn Electronics & Telecom. Engrs 27 (1981) 16-19.	
CJ4	Lai, M.; Goyal, N., Chemical bond approach to study the memory and threshold switching chalcogenide glasses, Indian Journal of pure & appl. phys. 29 (1991) 303-304.	
CK4	Leimer, F.; Stotzel, H.; Kottwitz, A., Isothermal electrical polarisation of amorphous GeSe films with blocking Al contacts influenced by Poole-Frenkel conduction, Phys. Stat. Sol. (a) 29 (1975) K129-K132.	
 	11. 11. 11. 11. 11. 11. 11. 11. 11. 11.	

PTO/SB/08B (10-01)
Approved for use through 10/31/2002.OMB 0851-0031
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Complete if Known Application Number 10/663,741 Filing Date September 17, 2003 First Named Inventor Terry L. Gilton N/A Group Art Unit Examiner Name Not Yet Assigned

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şΨ							140t Tet Assigned				
			9	of	11	Attorney Docket Number	M4065.0656/P656				
		CL4	Appl. Phys.	Lett.	46 (1985) 543-545.		sion of Ag in GexSe1-x glass,				
		CM4	Matsushita system, Jaj	Matsushita, T.; Yamagami, T.; Okuda, M., Polarized memory effect observed on Se-SnO2 system, Jap. J. Appl. Phys. 11 (1972) 1657-1662.							
	7	CN4	Matsushita selenium th	latsushita, T.; Yamagami, T.; Okuda, M., Polarized memory effect observed on amorphous elenium thin films, Jpn. J. Appl. Phys. 11 (1972) 606.							
		CO4	Mazurier, F V2O5 base	Mazurier, F.; Levy, M.; Souquet, J.L, Reversible and irreversible electrical switching in TeO2- /2O5 based glasses, Journal de Physique IV 2 (1992) C2-185 - C2-188.							
		CP4	electron an	McHardy et al., The dissolution of metals in amorphous chalcogenides and the effects o electron and ultraviolet radiation, 20 J. Phys. C.: Solid State Phys., pp. 4055-4075 (1987)f							
		CQ4	Messoussi, M/Se struct	R.; E tures	ernede, J.C.; Benhida, (M=Ni,Bi), Mat. Chem. /	S.; Abachi, T.; Latef, And Phys. 28 (1991) 2	A., Electrical characterization of 253-258.				
		CR4	and constra	aint th	eory, J. Non-Cryst. Soli	ds 240 (1998) 1-21.	ming tendency in chalcogenides				
		CS4	metallizatio	n cell	devices, J. Non-Cryst.	Solids 299-302 (2002)	ses used in programmable ) 1023-1027.				
		CT4	glasses, Ph	ıvs. R	lev. Lett. 83 (1999) 3848	3-3851.	ng as an additive in chalcogenide				
		CU4	(1973) 423	432.			2Se, J. Phys. Soc. Japan 34				
- 1		CV4	Miyatani, S	y., E	lectrical properties of A	g2Se, J. Phys. Soc. J	apan 13 (1958) 317.				
		CW4	(1959) 996	-1002	•		Se, Journal Phys. Soc. Japan 14				
		CX4	(1968) 1-17	<u>'.                                    </u>			ons, J. Non-Cryst. Solids 1				
		CY4	transitions i	in cha	dcogenide thin films, Jp	n. J. Appl. Phys. 32 (1	atile memory based on phase 1993) 564-569.				
		CZ4	nonvolatile Appl. Phys.	mem 39 (2	ory cell based on revers 2000) 6157-6161.	sible phase transition i	A.; Suzuki, M., Submicron in chalcogenide glasses, Jpn. J.				
		CA5	parameters	of G	da, M.; Matsushita, T.; Y exSe1-x amorphous thi	n films, Jap. J. <u>App. P</u>	hys. 15 (1976) 849-853.				
		CB5	electrical sv	vitchi	ng in chalcogenide netw	rork glasses, Phys. R	g the effect of topology on ev. B 54 (1996) 4413-4415.				
		CC5	IEEE transa	action	s on electron dev. Ed-2	0 (1973) 195-209.	terials to computer memories,				
		CD5	semicondu	ctors	Fritzsche, H., Reversibl for memory and logic, M	lettalurgical transaction	ons 2 (1971) 641-645.				
		CE5	Rev. Lett. 2	1 (19	68) 1450-1453.		n disordered structures, Phys.				
		CF5	electrically	progr	ammable nonvolatile sv	itching device, IEE P	., New amorphous-silicon roc. 129 (1982) 51-54				
		CG5									
		CH5 Owen, A.E.; Le Comber, P.G.; Hajto, J.; Rose, M.J.; Snell, A.J., Switching in amorphous devices, Int. J. Electronics 73 (1992) 897-906.									
		CI5	Owen et al.	, Met	al-Chalcogenide Photor	esists for High Resolu	ution Lithography and Sub- . 447-451 (M. Reed ed. 1989).				
		CJ5	Pearson, A	.D.; N			nducting glass diodes, App.				
[		CK5	Pinto, R.; R	lamar	nathan, K.V., Electric fie	ld induced memory sv	witching in thin films of the				

PTO/SB/08B (10-01)

Approved for use through 10/31/2002.OMB 0851-0031

U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE

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4. C	Sueer		10	01	1	<u>'                                      </u>	Attorney Section temper	M4003.0030/F030			
ſ		ſ	chalcogenie	de svs	tem Ge-As-	Se. Appl. F	Phys. Lett. 19 (1971) 2	21-223.	T		
		CL5	Popescu, C of structure	., The	effect of lo	cal non-uni de glasses	formities on thermal so Solid-state electronic	witching and high field behavior as 18 (1975) 671-681.			
		CM5	phenomenon, J. Non-Cryst. Solids 8-10 (1972) 531-537.								
		CN5	amorphous	selen	ium, Phys.	Stat. Sol. (a	a) 44 (1977) K71-K73.	_			
		CO5	glasses, J.	Phys.	D: Appl. Pl	hys. 29 (19	96) 2004-2008.	ry switching in Ge-As-Te			
		CP5	Eng. B12 (1	1992)	219-222.			Bi-Se-Te glasses, Mat. Sci. and			
		CQ5	telluride gla	sses	doped with	Cu and Ag,	Appl. Phys. A 69 (199				
		CR5	silicon anal	ogue i	memory dev	rices, J. No	n-Cryst. Solids 115 (1				
		CS5	volatility in	a -Si:H	I memory d	evices, Ma	l. Res. Soc. Symp. Pro	Owen,A.E., Aspects of non- oc. V 258, 1992, 1075-1080.			
		CT5	Non-Cryst.	Solids	29 (1978)	397-407.	<u> </u>	alcogenide switching devices, J.			
-		CU5	vacuum, Pr	oc. In	dian Natn. S	Sci. Acad. 4	6, A, (1980) 362-368.		_		
		CV5	and applied	Dhys	. 35 (1997)	424-427.	• •	er selenide films, Ind. J. Of pure			
L		CW5	46 B. CHEM S	SOC. JA	PAN, No. 12,	pp. 3662-33	65 (1973).				
		CX5		ects ir				; Osborne, I.L., Analogue n-Cryst. Solids 137-138 (1991)			
		CY5	Analogue n Proc. V 297	nemor , 199	y effects in 6 3, 1017-102	metal/a-Si: 1.	H/metal thin film struct	wen, A.E.; Gibson, R.A.G., tures, Mat. Res. Soc. Symp.			
L		CZ5	Appl. Phys.	8 (19	75) L120-L1	122.		nemory devices, J. Phys. D:	<u> </u>		
		CA6	Non-Cryst.	Solids	21 (1976)	<u>319-329.</u>		alcogenide memory devices, J.			
		CB6	glasses, Ap	p. Ph	ys. Lett. 15	(1969) 55-5	57.	s in semiconducting chalcogenide	'		
		CC6	(1990) 1373	3-1377	7.			rocess, Mod. Phys. Lett B 4			
CD6 Tanaka, K.; Iizima, S.; Sugi, M.; Okada, Y.; Kikuchi, M., Thermal effects on switchin phenomenon in chalcogenide amorphous semiconductors, Solid State Comm. 8 (19 389.  CE6 Thornburg, D.D., Memory switching in a Type I amorphous chalcogenide, J. Elect. N (1973) 3-15.						olid State Comm. 8 (1970) 387-					
							<u> </u>				
	·•	CF6	(1972) 113-	120.	•		·	elenide, J. Non-Cryst. Solids 11			
		CG6	in amorpho	us ars	enic triseler	nide, Journa	al(??) (1972) 4609-46				
		CH6	J. Non-Crys	t. Sol	ids 261 (200	00) 277-281	<u>l</u>	xSe1-x and AsxSe1-x systems,			
L		CI6	Titus, S.S.K	(.; Cha	atterjee, R.;	Asokan, S.	, Electrical switching a	and short-range order in As-Te			

PTO/SB/08B (10-01)
Approved for use through 10/31/2002.OMB 0851-0031
U. S. Patent and Trademark Office: U.S. DEPARTMENT OF COMMERCE
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	_		First Named Inventor	Terry L. Gilton		
			Group Art Unit	N/A		
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257-1		<u>'.'</u>	•	<u> </u>	, , , , , , , , , , , , , , , , , , , ,		
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		Iglasses, Phy	ys. Rev. B	48 (1993) 1465	0-14652.		4
	CJ6	Tranchant, S.; Peytavin, S.; Ribes, M.; Flank, A.M.; Dexpert, H.; Lagarde, J.P., Silver chalcogenide glasses Ag-Ge-Se: lonic conduction and exafs structural investigation, Transport-structure relations in fast ion and mixed conductors Proceedings of the 6th Riso International symposium. 9-13 September 1985.					
	CK5	effects. Thir	Solid Film	ns 57 (1979) 49-	54.	thin films: switching and memory	
	CL5	Ge0.4Se0.6	, J. Non-C	ryst. Solids 117-	-118 (1990) <u>219-22</u>	induced crystallization of amorphous 1.	
	СМ6	Uttecht, R.;	Stevenson	, H.; Sie, C.H.;	Griener, J.D.; Ragh	avan, K.S., Electric field induced s 2 (1970) 358-370.	
•	CIN	Viger, C.; Le	efrancols, ( Solids 33 (	G.; Fleury, G., A 1976) 267-272.	nomalous behaviou	ur of amorphous selenium films, J.	
	CO6	Vodenichard	ov, C.; Par	vanov,S.; Petko	v,P., Electrode-limit 1989) 447-454.	ted currents in the thin-film M-GeSe-	
	CP6	Wang, SJ.	; Misium, C	3.R.; Camp, J.C	.; Chen, KL.; Tige lev. Lett. 13 (1992)	laar, H.L., High-performance 471-472.	
	CQ6		).F., Thres	hold switching a		ts in amorphous semiconductors,	Ī
	CR6	West, W.C.:	Sieradzki 0.36Ag0.4	, K.; Kardynal, B 0 Ag System pr	.; Kozicki, M.N., Ed epared by photodis	uivalent circuit modeling of the solution of Ag, J. Electrochem. Soc.	
	CS6	West, W.C.,	Electrical	y erasable non- s, Ph.D. Dissert	ation, ASU 1998	electrochemical deposition of	
	CS7	Zhang, M.; I Tg, with ave	Mancini, S rage coord the slope	.; Bresser, W.; E dination number dTg/d <m>  at th</m>	Boolchand, P., Varia , <m>, in network g</m>	ation of glass transition temperature, glasses: evidence of a threshold n threshold ( <m>=2.4), J. Non-Cryst.</m>	

Examiner		Date	
Signature	·	Considered_	

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